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09/624,524	07/24/2000	Andrea Schmidt	DE919950047US2	6841

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EXAMINER

SHRADER, LAWRENCE J

ART UNIT

PAPER NUMBER

2124

DATE MAILED: 05/07/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/624,524

Applicant(s)

SCHMIDT ET AL.

Examiner

Lawrence Shrader

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 July 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☒ Claim(s) 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f):
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

## DETAILED ACTION

### *Information Disclosure Statement*

1. The “supplemental” IDS filed on 7/24/2000 only indicates that the enclosed references were included in a Japanese search report, wherein relevant portions of the references are indicated. However, the Japanese search report has not been filed. Thus, said foreign (non-English) documents/references have not been considered on merit, but place of record only.

### *Claim Objections*

2. Claim 7 is objected to because of the following informalities: at line 7, the limitation refers to “said Transaction Method is [proceeding]...”. The context of the limitation, in relation to the use of the term “succeeding” later in the same sentence, indicates that the intended term to be used is “preceding.” Examiner is assuming this interpretation in the action. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 4, 5, and 9; 12, 15, 16, and 20; 23, 26, 27, and 31; and 34 - 45 are rejected under 35 U.S.C. 102(b) as being anticipated by White, U.S. Patent 5,428,782

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In regard to claim 1, White discloses a panel driven application in a data processing system comprised of:

*“An analysis step of analyzing a description of said Business Application panels determining their input data.”* White discloses user interface panels with certain attributes displayed on the user interface panel to identify parameters (determining the input data) associated with the user interaction (column 19, lines 42 – 54).

*“A generating step generating according to said analysis step at least one procedure...being callable from a program...autonomously executing at least part of said Business Application without interacting with said user.”* White discloses a Transaction Definition Table (TDT) with all the control information to properly communicate panels and control of execution flow (column 9, lines 22 – 34), and a Generate Transaction Definition (GTD) that automatically generates objects from the TDT to produce application specific logic (column 8, lines 37 – 53) for a given transaction (column 9, lines 58 – 66).

*“Wherein said generation step generates program code into the procedure ... is providing required input data according to said analysis step to at least one sequence of succeeding Business Application panels, said sequence comprising at least one Business Application panel.”* White discloses a transaction comprised of a collection of panels, reports, procedures, databases, etc. to be utilized on behalf of an application to perform functions for that application (column 19, lines 55 – 59; column 19, lines 60 – 64), and that the Transaction Definition Table (from the analysis step) correlates input/output application panels (column 9, lines 28 – 34) across multiple executions (a sequence).

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*“Wherein said generating step generates ... is performing a required activity for launching said Business Application to autonomously process at least one sequence of succeeding Business Application panels without interaction with said user.”* White discloses that although a terminal has a human interface for initiating transactions, a “terminal” could also be a program, which could process a sequence of panels autonomous of human interaction (column 19, lines 42 – 54).

In regard to claim 4:

*“...wherein said Business Application message description generation step stores...”* White teaches a method of storing descriptive information on the panel elements, including type, length, position, and indication of input or output (column 21, line 7 to column 22 line 35).

In regard to claim 5:

*“...wherein said Business Application panel description is generated by parsing and analyzing Business Application message implementations...”* White teaches that the user updates the Transaction Definition File (TDF) (column 9, lines 58 – 66; column 10, lines 32 – 36), which allows the GTD to compile the components in the TDF as well as defining constructing, composing, and deploying (parse and analyze) of the application components (column 10, line 25 to column 11, line 20).

In regard to claim 9 incorporating the rejection of claim 1:

White discloses a system that operates on a local data processing system as well as communicating with remote data processing systems via a computer network using available protocols allowing the transaction method to control execution on a remote data processing system (column 4, lines 52 – 68; column 17, lines 38 – 48; Figures 6 and 8).

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In regard to claims 12, 15, 16, 20 (computer apparatus), and claims 23, 26, 27, 31 (program storage device), they are rejected for the same reasons put forth in the rejection of the corresponding claims 1, 4, 5, 9 (method).

In regard to claim 34, White discloses a panel driven application in a data processing system comprised of:

*“A transaction method called from a program...without interacting with said user.”* White discloses a Transaction Definition Table (TDT) with all the control information to properly communicate panels and control of execution flow (column 9, lines 22 – 34), and a Generate Transaction Definition (GTD) that automatically generates objects from the TDT to produce application specific logic (column 8, lines 37 – 53) for a given transaction (column 9, lines 58 – 66).

*“Wherein said transaction method is autonomously providing required input data...to at least one sequence of succeeding Business Application panels.”* White discloses a transaction comprised of a collection of panels, reports, procedures, databases, etc. to be utilized on behalf of an application to perform functions for that application (column 19, lines 55 – 64), and that the Transaction Definition Table correlates input/output application panels (column 9, lines 28 – 34) across multiple executions (a sequence).

*“Wherein said transaction method is performing the required activity for launching said Business Application to process...a next Business Application panel...without interaction with said user.”* White discloses that although a terminal has a human interface for initiating transactions, a “terminal” could also be a program, which

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could process a sequence of panels autonomous of human interaction (column 19, lines 42 – 54).

In regard to claim 35 incorporating the rejection of claim 34:

*“...wherein said transaction method includes handling Business Application messages with respect to individual Business Application panel elements based upon transaction records having Business Application message descriptions.”* White discloses the creation of a view object using the TDF (containing panel elements) that correlates information to be communicated to the user, user profile, and application procedures; it is initialized when performing input/output panel (Business Application message) processing (column 8, lines 37 – 50).

*“...wherein said transaction method launches the Business Application to process...a next Business Application panel according to a Business Application message transition action.”* White teaches the progressive processing of a panel by the Business Application through a view stack (column 16, lines 42 – 47; column 137, line 58 to column 138, line 3).

In regard to claim 36 incorporating the rejection of claim 34:

*“Starting said execution of Business Application message with an interactive transaction record...representing a first Business Application message of said execution unit of succeeding Business Application messages.”* White discloses input from a terminal to a procedure (an interactive transaction record) with a transaction view presented to the procedure (column 58, lines 25 – 35).

*“Proceeding said execution of Business Application messages with all preemptive transaction records...and not being a first Business Application message in said*

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*execution unit.*” White discloses the use of a view-stack to save and restore view information at different points in a transaction execution (column 137, lines 59 – 64).

*“Ending said execution of Business Application messages with a next interactive transaction record or with a last preemptive transaction record...”* White discloses the use of a view-stack to save and restore view information at different points in a transaction execution (column 137, lines 59 – 64). A stack has a last record.

In regard to claim 37 incorporating the rejection of claim 34:

White discloses a system that operates on a local data processing system as well as communicating with remote data processing systems via a computer network allowing the transaction method to control execution on a remote data processing system (column 4, lines 52 – 68; column 17, lines 38 – 48; Figures 6 and 8).

In regard to claims 38 – 41 (a computer apparatus) and claims 42 – 43 (program storage device), they are rejected for the same reasons put forth in the rejection of the corresponding claims 34 – 37(method).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 3, 6 – 8; 13, 14, 17 – 19; 24, 25, 28 – 30 are rejected under 35

U.S.C. 103(a) as being unpatentable over White, U.S. Patent 5,428,782 as applied to



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claims 1, 12, and 23 respectively above, and further in view of Chen et al., U.S. Patent 5,806,062 (hereinafter referred to as Chen).

In regard to claim 2:

*"...further comprising generating and description of said Business Application panels prior to said analysis step...being independent from the system environment..."*

White discloses a Transaction Definition File (TDF) composed of predefined (prior to analysis) components, which are used by the Generate Transaction Definition (GTD) to build a transaction (column 9, lines 58 – 66). The GTD builds transactions in a heterogeneous (independent from the system) environment (column 10, lines 30 – 32).

*"A Business Application panel modeling step, in which at least one of said Business Application panels...is modeled with respect to individual Business Application panel elements."* White discloses a modeling step by creating a view object using the TDF (containing panel elements) that correlates information to be communicated to the user, user profile, and application procedures; it is initialized when performing panel input/output processing (column 8, lines 37 – 50).

*"A Business Application message description generation step, in which at least one of said Business Application panels ...is parsed with respect to individual Business Application panel elements."* White discloses that the TDF is used by the GTD to compile and create object modules (column 10, lines 1 – 6). The individual elements of the TDF would be parsed by the GTD in order to prepare for compilation.

*"In which for each modeled Business Application message transaction record is generated storing said Business Application message description."* White discloses a

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method of storing relevant data (transaction record) from the application in a profile view (message description) (column 16, lines 42 – 47).

*“A User Interaction Graph generation step, in which a sequence of Business Application messages...is stored in at least one directed User Interaction Graph.”* White discloses a view stack for storing the relevant data from the application (column 16, lines 42 – 47; column 137, line 51 to column 138, line 3), but does not teach viewing the data with a user interaction graph. However, Chen teaches the use of a directed user interaction graph (column 17, lines 59 – 65). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to implement a business application storing view-data in a stack as taught by White, and modify it with the interactive user graph as taught by Chen, because then the user would additionally have a interactive graphical display of the data on the view-stack as opposed to only tabular or panel display data thereby making the user interaction more efficient.

In regard to claim 3 incorporating the rejection of claim 2:

*“A Business Application message transition generation step...after a current Business Application panel according to the sequence within the User Interaction Graph.”* White teaches the progressive processing of a panel by the Business Application through a view stack (column 16, lines 42 – 47; column 137, line 51 to column 138, line 3), but does not teach using the sequence within a user interaction graph. However, Chen teaches a directed user interaction graph (column 17, lines 59 – 65). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to implement a business application storing view-data in a stack as taught by White, and modify it with the interactive user graph as taught by Chen, because

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then the user would have a visual representation of the relationships in panel structure and provided a more efficient means to manipulate the system based on that graphical information.

*“In which said Business Application message transition action is stored within the generated transaction record...”* White teaches a view stack for storing the storing relevant data from the application (column 16, lines 42 – 47; column 137, line 51 to column 138, line 3).

In regard to claim 6 incorporating the rejection of claim 2:

*“...message description generation step incorporates indications on specific characteristics into the generated transaction record encompassing:*

*“An entry transaction record indication...required for an initial start of a Business Application execution.”* White teaches the characteristics of a record indicated for an initial start (column 58, lines 25 – 66).

*“An external transaction record indication, characterizing a Business Application message being part of a second user interaction graph...”* White discloses a procedure calling other procedures and external procedure calls (external transaction record) external to the transaction (column 58, line 67 to column 59, line 54), in which case the view-stack would be updated (column 137, line 58 to column 138 line 3). White does not teach the use of a user interaction graph. However, Chen teaches the use of a user interaction graph (column 17, lines 59 – 65). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to implement an application in a business system with external transaction records with an updated view-stack as taught by White and modifying the view-stack mechanism with the user interaction graph as

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implemented in the teaching of Chen because this would allow more efficient selection of an external transaction record when the system components are displayed in a graphical representation of the entire system.

*“An interactive transaction record indication, indicating a Business Application message on an execution unit of succeeding ...”* White discloses input from a terminal to a procedure (an interactive transaction record) with a transaction view presented to the procedure (column 58, lines 25 – 35). White does not teach the use of a user interaction graph. However, Chen teaches the use of a user interaction graph (column 17, lines 59 – 65). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to implement an application in a business system with interactive transaction records as taught by White modified with the user interaction graph as implemented in the teaching of Chen because this would allow more efficient display or selection of succeeding transaction records preserved in a tree form for selection by the user.

*“A preemptive transaction record indication...and not being a first Business Application message in said execution unit.”* White discloses the use of a view-stack to save and restore view information at different points in a transaction execution (column 137, lines 58 – 62).

In regard to claim 7 incorporating the rejection of claim 6:

*“Said transaction method is starting...with an interactive transaction record.”*

White discloses input from a terminal to a procedure (an interactive transaction record) with a transaction view presented to the procedure (column 58, lines 25 – 35).

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*“Said transaction method is proceeding...with all preemptive transaction records succeeding said interactive transaction record within the user interaction graph.”* White discloses the use of a view-stack to save and restore view information at different points in a transaction execution (column 137, lines 58 – 62), but does not disclose the use of a user interaction graph. However, Chen teaches the use of a user interaction graph (column 17, lines 59 – 65). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to implement an application in a business system with the use of a view-stack to save and restore view information as taught by White modified with the user interaction graph as implemented in the teaching of Chen because this would allow the information in the view-stack to be displayed in a graphical format allowing more efficient user interaction.

*“Said transaction method is ending...with a next interactive transaction record or with a last preemptive transaction record if no transaction record is succeeding...”*

White discloses the use of a view-stack to save and restore view information at different points in a transaction execution (column 137, lines 58 – 62). A stack has a last record.

In regard to claim 8 incorporating the rejection of claim 7:

*“Encompasses as transaction method input parameters...”* White discloses that the GTD is used to specify both input and output parameters (column 50, line 26 to column 51, line 6).

*“Encompasses as transaction method output parameters...”* White discloses that the GTD is used to specify both input and output parameters (column 50, line 2 to column 51, line 6).

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In regard to claims 13 – 14 and 17 – 19 (computer apparatus), and claims 24 – 25 and 28 – 30 (program storage device), they are rejected for the same reasons put forth in the rejection of the corresponding claims 2 – 3 and 6 – 8 (method).

7. Claims 10, 11; 21, 22; 32, 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over White, U.S. Patent 5,428,782 as applied to claims 1, 12, and 23 respectively above, and further in view of Khalidi, U.S. Patent 5,764,897.

White discloses a method by which a panel-driven application is executed with transactions on a data processing system, but does not teach object-oriented technology. Khalidi teaches an object-oriented transaction processing system (Abstract; Figure 4). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to implement a panel-driven data processing system as disclosed by White and modify it with the object-oriented technology as found in the teaching of Khalidi because then different subsystems can operate independently allowing modification of transactions without modifying the entire base system.

In regard to claims 21 and 22 (computer apparatus), and claims 32 and 33 (program storage device), they are rejected for the same reasons put forth in the rejection of the corresponding claims 10 and 11 (method).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U.S. Patent 5,586,312 to Johnson et al., regarding independent transaction processing.

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U.S. Patent 6,289,393 to Phillips et al., regarding multiple transaction processors.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Shrader whose telephone number is (703) 305-8046. The examiner can normally be reached on M-F 08:00-16:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kakali Chaki can be reached on (703) 305-9662. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7239 for regular communications and (703) 746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Lawrence Shrader  
Examiner  
Art Unit 2124

April 30, 2003



**TUAN Q. DAM**  
**PRIMARY EXAMINER**